

IN THE CLAIMS

1-9. (canceled)

10. (currently amended) A recording apparatus for a disc-shaped optical recording medium recording to a mother disc, comprising:

a bit operating unit for splitting a digital signal into a first data comprised of upper bits and a second data comprised of lower bits;

a light source for outputting a recording laser beam;

a light modulator for modulating said recording laser beam outputted from said light source based on supplied said first data;

a light deflector for deflecting based on supplied said second data the modulated recording laser beam outputted from said light modulator and producing a variable offset from a track center in a radial direction of said disc-shaped optical recording medium mother disc; and

an objective lens for converging said modulated recording laser beam that is outputted from said light deflector with said variable offset from said track center in said radial direction onto said disc-shaped optical recording medium; and

a controller for controlling said light deflector so that a plurality of pits are formed on said track center at a predetermined interval mother disc.

11. (canceled)

12. (currently amended) The apparatus according to claim 110, further comprising:

a first driving unit to which said first data is supplied from said signal processing bit operating unit and that drives said light modulator; and

a second driving unit to which said second data is supplied from said signal processing bit operating unit and that drives said light deflector.

13. (currently amended) The apparatus according to claim ~~1110~~, wherein said ~~signal processing~~ ~~bit operating~~ unit forms said first data based on main data that is recorded on said ~~optical recording medium~~ ~~mother disc~~ and forms said second data based on additional data of the main data that is recorded on said ~~optical recording medium~~ ~~mother disc~~.

14-43. (canceled)

44. (currently amended) A recording method for a disc-shaped ~~optical recording medium~~ recording to a mother disc, comprising the steps of:

~~splitting a digital signal into a first data comprised of upper bits and a second data comprised of lower bits;~~

modulating a recording laser beam outputted from a light source based on ~~supplied~~ ~~said~~ first data and producing a modulated recording laser beam;

deflecting based on ~~supplied~~ ~~said~~ second data said modulated recording laser beam and producing a variable offset from a track center in a radial direction of said disc-shaped ~~optical recording medium~~ ~~mother disc~~; and

converging said modulated and deflected recording laser beam with said variable offset from said track center in said radial direction onto said disc-shaped ~~optical recording medium~~ ~~mother disc~~ by an objective lens; and

~~controlling said step of deflecting so that a plurality of pits are formed on said track center at a predetermined interval.~~

45. (currently amended) The method according to claim 44, wherein ~~said first data is formed based on main data that is recorded onto said optical recording medium and said second data is formed based on additionally comprises additional data of the main data is recorded on said optical recording medium.~~

46-61. (canceled)